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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/936,522 | 09/14/2001 | Zhan Cui | 36-1484 | 4379 |
| 23117 | 7590 | 08/18/2004 | EXAMINER | |
| NIXON & VANDERHYE, PC 1100 N GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201-4714 | | | KANG, INSUN | |
| | | ART UNIT | PAPER NUMBER | 2124 |

DATE MAILED: 08/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|--------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/936,522 | CUI ET AL. |
| Examiner | Art Unit | |
| Insun Kang | 2124 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 02 January 2003 and 14 September 2001.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-9 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-9 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 14 September 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>01022003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responding to application papers dated 1/2/2003 and 9/14/2001.
2. Claims 1-9 are pending in the application.

Specification

3. The disclosure is objected to because of the following informalities: there appears to be a minor typographical error (British spelling) such as "analysing" in claim 1. It needs to be corrected to "analyzing." Appropriate correction is required.
4. The incorporation of essential material in the specification by reference to a foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).
5. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If

no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

For Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.

(2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

The items are not titled as instructed above in the specification.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the data management system" in line 23.

There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the data management system" in line 23. It is unclear whether this is a part of the data analysis system or it is simply misplaced in the transitional phrase, instead of being placed in the preamble.

Claims 5 recites the limitation "the threshold" in line 1. There is insufficient antecedent basis for this limitation in the claim. Claim 5 recites that this claim is dependent on claim 3. It appears to be a typographical error as claim 4 recites the threshold. It is interpreted that claim 5 is dependent on claim 4.

Per claims 2-7, "A data analysis system" needs to be corrected to "The data analysis system" as they are dependent on claim 1.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1-8 are rejected under 35 U.S.C. 102(a) as being anticipated by Marazakis et al. (Management of Work Sessions in Dynamic Open environments, 8/1998) hereinafter referred to as "Marazakis."

Per claim 1:

Marazakis discloses:

A data analysis system for use in storing and analyzing data generated during use of a process management system in managing resources to carry out processes to provide one or more services ("Management applications, acting as clients of the monitor service, may invoke the GetRecs... GetAllRecs methods in order to correlate log records... collecting performance-related data to identify bottlenecks... the producers of log records can provide sufficient state information," page 5 second paragraph of the left column)

data storage for storing:

a) service definitions each identifying at least one process associated with provision of a service by the process management system ("The entry for a resource in the repository includes all the essential information that enable

monitoring and control of the component...Aurora monitor service. It consists of methods to register and unregister a task...to provide a log record...to retrieve either a specific record identified by its persistent key of type RECID," page 5 first paragraph of the left column)

b) a log of processes allocated, by the process management system in use, to respective resources managed by said process management system to provide a service ("its monitoring mechanisms that allows each service provider to log information about its own state and its interactions with others, supports monitoring of pair-wise interactions between parties. A session may span multiple distributed resources, owned by autonomous providers, Keeping track of the activities of tasks is achieved by requiring each container to register with the logging system...the logging systems of session managers constitute the basis of a distributed monitoring infrastructure," page 4, first paragraph of the right column)

c) a log of states of said resources, arising in use of the process management system to provide the service, with respect to carrying out the allocated processes ("its monitoring mechanisms that allows each service provider to log information about its own state and its interactions with others, supports monitoring of pair-wise interactions between parties...The Aurora monitor enables a client...to collect all log records about events of interest to the execution of a workflow...tracking the progress and current state of service flows," page 4, first paragraph of the right column)

-one or more inputs for receiving from the process management system

d) a service request identifying a data analysis service to be provided by the data analysis system to the process management system (“Management applications, acting as clients of the monitor service, may invoke the GetRecs...GetAllRecs methods in order to correlate log records...collecting performance-related data to identify bottlenecks...the producers of log records can provide sufficient state information,” page 5 second paragraph of the left column)

e) data, in use, to support said log of processes and said log of states -a data analyzer for analyzing the logged process and state information (“Management applications, acting as clients of the monitor service, may invoke the GetRecs...GetAllRecs methods in order to correlate log records...collecting performance-related data to identify bottlenecks...the producers of log records can provide sufficient state information to enable a management application to cancel or modify the effects of an action,” page 5 second paragraph of the left column)

-the data management system being arranged to generate, and output to the process management system, a performance measure with respect to said resources, based on analysis of the logged process and state information (“Management applications, acting as clients of the monitor service, may invoke the GetRecs...GetAllRecs methods in order to correlate log records...collecting performance-related data to identify bottlenecks...the producers of log records can provide sufficient state information to enable a

management application to cancel or modify the effects of an action," page 5
second paragraph of the left column)
as claimed.

Per claim 2:

The rejection of claim 1 is incorporated, and further, Marazakis teaches:
the log of states is maintainable during use of an identified process management
system in providing more than one instance of a service such that performance
of at least one resource may be analyzed with respect to each of said instances
("This infrastructure enables tracking the progress and current state of service
flows, as well as maintaining the interaction history for each participant," page 4
first paragraph of the right column) as claimed.

Per claim 3:

The rejection of claim 1 is incorporated, and further, Marazakis teaches:
the log of states is maintainable during use of an identified process management
system in providing instances of at least two different services, such that
performance of at least one resource may be analyzed with respect to each of
said instances("level of performance of all entities involved in workflow
processing be tracked and maintained according to predetermined levels," page
1 first paragraph of the right column) as claimed.

Per claim 4:

The rejection of claim 1 is incorporated, and further, Marazakis teaches:

the data analyzer measures the number of occurrences of a particular state for respective resources and the performance measure is determined according to whether the number of occurrences reaches a predetermined threshold (“level of performance of all entities involved in workflow processing be tracked and maintained according to predetermined levels,” page 1 first paragraph of the right column) as claimed.

Per claim 5:

The rejection of claim 4 is incorporated, and further, Marazakis teaches: rein the threshold comprises a percentage number of occurrences of said particular state in relation to the number of occurrences of that state plus other states (page 1 first paragraph of the right column) as claimed.

Per claim 6:

The rejection of claim 1 is incorporated, and further, Marazakis teaches: the states available to a respective resource in carrying out an allocated process comprise at least failure and success (“collecting performance-related data to identify bottlenecks, as well as for enabling flexible recover and compensation in the event of failures that cause exceptions. Recovery and compensation are possible since the producers of log records can provide sufficient state information,” page 5, second paragraph of the left column) as claimed.

Per claim 7:

The rejection of claim 1 is incorporated, and further, Marazakis teaches:

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the data received from the process management system in use includes a start time for provision of the relevant service and at least one of said log of processes and said log of states also logs the time taken by at least one identified resource to carry out a process ("Log records can simply define the start and end of steps in a session...the name of the resourced used, the start and ending time," page 4 second paragraph of the right column) as claimed.

Per claim 8, this claim is another version of the claimed data analysis system discussed in claim 1, wherein all claim limitations also have been addressed and/or covered in cited areas as set forth the above.

10. Claim 9 is rejected under 35 U.S.C. 102(e) as being anticipated by Wilson et al. (US Patent 6,714,976) hereinafter referred to as "Wilson."

Per claim 9:

Wilson teaches:

-data management system for use in storing and analyzing data generated during use of a process management system in managing processes (MUM database...monitoring agent is ...to provide for enterprise wide monitoring, as all the processes, including those that are distributed, on the clients and the servers can be monitored," col. 4 lines 45-54; "The MUM console...can store this information within the central database...for analysis by an operator," col. 4 lines 55-67; col. 5 lines 1-5)

- i) a request input for receiving a data analysis service request from the process management system(col. 6 lines 1-14, 22-30; col 13, lines 20-7)
 - a data input for receiving data inputs of at least two different types from the process management system,a service definition store for storing at least one service definition comprising one or more service requirements, including identification of data inputs required for provision of at least one data analysis service in respect of the service definition(col. Lines 49-63; col. 17 lines 52-67; col. 13 lines 13-27; col. 14 lines 16-34)
- iv) request processing means for accessing a service definition from the service definition store in accordance with a service identifier contained in a received data analysis service request ("the table...includes an exception identifier..., an associated threshold..., data identifiers and component types for data collection..., and the system components...that are contacted for performing a data gathering related to the monitoring process," col. Lines 49-63; col. 17 lines 52-67; col. 13 lines 13-27; col. 14 lines 16-34)
- a data input store for storing data inputs from the process management system required for provision of the data management service associated with said service identifier (col. Lines 49-63; col. 17 lines 52-67; col. 13 lines 13-27; col. 14 lines 16-34)
- wherein a first of said two different types of data input comprises representations of service agreements in place in respect of components of the process management system and a second of said two different types of data input comprises indicators that said service agreements have been satisfied in running

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of a process managed by said process management system ("The rule of the business transaction specification...may be ...listed in a particular order such that the collected data is matched against each rule in succession. Once the application is determined, the collected data may be matched with rules in the business transaction specification...by looking for a portion thereof that matches the application which is associated with the network data," col. 17 lines 38-51) as claimed.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 703-305-6465. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 703-305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IK
8/4/2004

Kakali Chakraborty

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